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## HYPERTENSION INTRODUCTION

Hypertension, also known as high blood pressure, affects 1 out of 3 U.S. adults. The more patients and caregivers know about their condition, the easier it can be to prevent and treat.

What I know about hypertension:
$\qquad$
$\qquad$
$\qquad$
$\qquad$

What I want to learn about hypertension:
$\qquad$
$\qquad$
$\qquad$
$\qquad$

My Goals:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Remember, it is important to be open and honest with your doctors and healthcare providers so they can accurately develop your plan of care and treat you. Give specific examples of problems you are having and ask questions if you don't understand something.

Managing your blood pressure will help you live a healthier life.

## HYPERTENSION CHECKLIST

Things to consider during each visit to determine worsening of condition or need for an altered plan of care.

Since your last doctor's appointment or nurse visit have you had:
$\qquad$ any headaches?
$\qquad$ any dizziness?
$\qquad$ any swelling (legs, ankles, feet, hands, fingers)?
$\qquad$ feelings of being more tired than usual?
$\qquad$ any changes in vision?
$\qquad$ an ER/urgent care visit for hypertension symptoms?
$\qquad$ a change in your smoking pattern?
$\qquad$ a change in your amount of alcohol consumed?
$\qquad$ a change in amount of exercise?

## WHAT IS HYPERTENSION?

Your blood carries oxygen to your tissues and organs to keep them working properly. When your heart beats it creates pressure-blood pressure which pushes blood through vessels.

Normally, the blood is able to flow through the vessels without any resistance. When resistance is met, the vessels become narrower, resulting in increased pressure.

Hypertension is a condition where a person's blood pressure stays at a level that is higher than normal (140/90 or higher). Pre-hypertension is when you are at risk for developing hypertension (120-140/80-90).

Normal


Increased resistance, more force required to move blood through vessel

Hypertensive


## HYPERTENSION FACTS

I feel fine. I don't have to worry about high blood pressure.
True $\qquad$ False $\qquad$

- About 75 million American adults have HTN (32\%)
- Only about half (54\%) of people with high blood pressure have their condition under control
- High blood pressure was a primary or contributing cause of death for more than 410,000 Americans in 2014-that's more than 1,100 deaths each day
- High blood pressure costs the nation \$48.6 billion each year. This total includes the cost of health care services, medications to treat high blood pressure, and missed days of work
- Having high blood pressure puts you at risk for heart disease and stroke, which are leading causes of death in the United States


What do you think are some contributing factors of Louisiana being in the highest prevalence category (32-38.6\%) for hypertension?
$\qquad$

## SYMPTOMS OF HYPERTENSION

People with high blood pressure only have sweating and a flushed face. I don't have those symptoms so l'm good.
True $\qquad$ False $\qquad$

Hypertension, or high blood pressure, is often called "the silent killer" because many times it has no obvious symptoms to indicate that something is wrong.


Circle the above symptoms that you have had recently or are currently experiencing:

I have $\qquad$ /12 of the listed symptoms

## RISK FACTORS

High blood pressure runs in my family. There is nothing I can do to prevent it. True $\qquad$ False $\qquad$
Hypertension does have uncontrollable risk factors. However, it also has risk factors that you can control.


List risk factors that cannot be controlled: $\qquad$
$\qquad$
$\qquad$
$\qquad$

List risk factors that you can control: $\qquad$
$\qquad$
$\qquad$
$\qquad$

## DIAGNOSING HYPERTENSION

The best way to diagnose hypertension is by having your blood pressure measured. A blood pressure reading, given in millimeters of mercury ( mm Hg ), has two numbers. The first, or upper, number measures the pressure in your arteries when your heart beats (systolic pressure). The second, or lower, number measures the pressure in your arteries between beats (diastolic pressure).

Both numbers in a blood pressure reading are important. But after age 50, the systolic reading is even more significant.

Your doctor will likely take two to three blood pressure readings each at three or more separate appointments before diagnosing you with high blood pressure. This is because blood pressure normally varies throughout the day, and it may be elevated during visits to the doctor.

## Blood pressure measurements fall into four general categories:

- Normal blood pressure: $120 / 80 \mathrm{~mm}$ Hg
- Elevated blood pressure: Ranging from 120 to 129 mm Hg systolic and a diastolic pressure below 80 mm Hg
- Stage 1 hypertension: Systolic pressure ranging from 130 to 139 mm Hg or a diastolic pressure ranging from 80 to 89 mm Hg
- Stage 2 hypertension: More severe hypertension; systolic pressure of 140 mm Hg or higher or a diastolic pressure of 90 mm Hg or higher.

|  | Categories |  |  |
| :---: | :---: | :---: | :---: |
| BLOOD PRESSURE CATEGORY | SYSTOLIC mm Hg (upper number) |  | DIASTOLIC mm Hg (lower number) |
| NORMAL | LESS THAN 120 | and | LESS THAN 80 |
| ELEVATED | 120-129 | and | LESS THAN 80 |
| HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 1 | 130-139 | or | 80-89 |
| HICH BLOOD PRESSURE (HYPERTENSION) STAGE 2 | 140 OR HICHER | or | 90 OR HIGHER |
| HYPERTENSIVE CRISIS (consult your doctor immediately) | HIGHER THAN 180 | and/or | HIGHER THAN 120 |

## CHECKING YOUR BLOOD PRESSURE AT HOME

I have high blood pressure and my doctor checks it for me. This means that I don't need to check it at home. True $\qquad$ False $\qquad$
Because blood pressure can fluctuate, home monitoring and recording of blood pressure readings can provide your doctor with valuable information to determine if your treatment plan is working.

It's important to take the readings at the same time each day, such as morning and evening, or as your doctor recommends.

Some insurance companies may cover a home $\mathrm{B} / \mathrm{P}$ machine. If you do not have one already, have your nurse check with your insurance to see if you qualify.


## DANGERS OF HYPERTENSION

Chronic high blood pressure left untreated can lead to the following problems, creating a "domino effect":

## CONSEQUENCES of High Blood Pressure

ilie lo why:

High blood pressure is often the first domino in a chain or "domino effect" leading to devastating consequences, like:


## HYPERTENSION DIET

- Eating a heart-healthy diet is important for managing your blood pressure and reducing your risk of heart attack, stroke and other health threats.
- When following a heart healthy diet, you want to limit:
- Saturated and trans fats
- Sodium (salt)
- Red meats
- Sweets and sugar sweetened beverages
- Try to aim for a diet rich in:
- Fruits
- Vegetables
- Whole-grains
- Low fat dairy products
- Skinless poultry and fish
- Nuts and legumes

Look at the list below and write a $\underline{\mathbf{D}}$ if you eat/drink it daily, $\underline{\mathbf{W}}$ if you eat/drink it weekly, and $\underline{\mathbf{R}}$ if you eat/drink it rarely.
Compare it to the list above to see what areas you need improvement on and which areas you are doing a good job.
$\qquad$ Fast food
Frozen dinners
Added salt
Red meats
Fruits
__Vegetables
Poultry with skin
Poultry without skin
Fish
Fried foods
Sodas
Water
__Juice

# [ <br> <br> The DASH Diet <br> <br> The DASH Diet for Healthy Blood for Healthy Blood Pressure 

 Pressure}

Follow these DASH (Dietary Approaches to Stop Hypertension) guidelines for a healthier, more balanced diet


## FOODS HIGH IN SODIUM

If I do not add any salt to my food, that means it is low in sodium.
$\qquad$ True $\qquad$ False

Some foods are high in sodium, even without adding table salt. Many of these foods we eat on a regular basis and may not realize how high the sodium content is. Look at the following list and circle the foods that you eat often. Put a star by the ones that you are surprised to learn are high in sodium.


## LIFESTYLE CHANGES

## Alcohol

- If you drink, limit your alcohol consumption to no more than two drinks per day for men and no more than one drink per day for women.
- A drink is one 12 oz . beer, 4 oz . of wine, 1.5 oz . of 80 -proof spirits or 1 oz . of 100-proof spirits.
- Unfortunately, red wine as a miracle drink for heart heath is a myth. The linkage reported in many of these studies may be due to other lifestyle factors rather than alcohol.
- Like any other dietary or lifestyle choice, it's a matter of moderation.



## Smoking

- Smoking is the most important preventable cause of premature death in the United States. For your overall health and to reduce your risk for heart attack and stroke, avoid all forms of tobacco as well as secondhand smoke.
- While smoking is a proven risk factor for heart attack and stroke, its connection to high blood pressure is still being determined.
- However, both smoking and exposure to secondhand smoke increase the risk for the buildup of fatty substances (plaque) inside the arteries (atherosclerosis) - a process that high blood pressure is known to accelerate.
- Every time you smoke, it also causes a temporary increase in blood pressure.


## EXERCISE \& WEIGHT MANAGEMENT

- Physical activity not only helps control high blood pressure, but it also helps you manage your weight, strengthen your heart and lower your stress level.
- A healthy weight, a strong heart and general emotional health are all good for your blood pressure.
- People who aren't physically active are much more likely to have health problems, like heart attack and stroke.
- Regular physical activity helps to lower blood pressure, control weight and reduce stress.
- You can break up your weekly physical activity goal however you like.
- An easy plan to remember is 15-30 minutes a day on at least 5 days a week.
- Make sure that you breathe regularly throughout your warm-up, exercise routine and cool-down. Holding your breath can raise blood pressure and cause muscle cramping. Regular, deep breathing can also help relax you.
- A little weight loss can bring a lot of health gains.
- Weight loss reduces the strain on your heart. Being overweight puts extra strain on your heart, increasing the risk for developing high blood pressure and damage to your blood vessels that can lead to serious health threats.
- Losing as little as 10-15 pounds can bring a lot of health benefits.

My Workout Plan:

My Current Weight: $\qquad$ My Goal Weight: $\qquad$

## TYPES OF BLOOD PRESSURE MEDICINES

## Diuretics

- Diuretics help the body get rid of excess sodium (salt) and water and help control blood pressure.
- Possible side effects: high or low potassium levels, muscle cramps, high blood sugar levels
- Diuretics I take:


## Beta Blockers

- Beta blockers reduce the heart rate, the heart's workload and the heart's output of blood, which lowers blood pressure.
- Ending in - 'olol'
- Possible side effects: Trouble sleeping, shortness of breath, slow heartbeat, cold hands and feet
- Beta blockers I take:


## ACE Inhibitors

- Angiotensin is a chemical that causes the arteries to become narrow, especially in the kidneys but also throughout the body. ACE stands for Angiotensin-converting enzyme. ACE inhibitors help the body produce less angiotensin, which helps the blood vessels relax and open up, which, in turn, lowers blood pressure.
- Ending in - 'pril'
- Possible side effects: skin rash, loss of taste and dry cough
- ACE inhibitors I take:


## TYPES OF BLOOD PRESSURE MEDICINES... CONTINUED

## Angiotensin II Receptor Blockers

- These drugs block the effects of angiotensin, a chemical that causes the arteries to become narrow. Angiotensin needs a receptor- like a chemical "slot" to fit into or bind with- in order to constrict the blood vessel. ARBs block the receptors so the angiotensin fails to constrict the blood vessel. This means blood vessels stay open and blood pressure is reduced.
- Ending in - 'tan'
- Possible side effects: Occasional dizziness
- Angiotensin blockers I take:


## Calcium Channel Blockers

- This drug prevents calcium from entering the smooth muscle cells of the heart and arteries. When calcium enters these cells, it causes a stronger and harder contraction, so by decreasing the calcium the hearts' contraction is not as forceful. Calcium channel blockers relax and open up narrowed blood vessels, reduce heart rate and lower blood pressure.
- Possible side effects: Palpitations, swollen ankles, constipation, headache and dizziness
- Calcium channel blockers I take:


## Alpha Blockers

- These drugs reduce the arteries' resistance, relaxing the muscle tone of the vascular walls.
- Ending in - 'osin'
- Possible side effects: Dizziness, fast heart rate and drop in $B / P$ when standing
- Alpha blockers I take:


## TYPES OF BLOOD PRESSURE MEDICINES... CONTINUED

## Combined Alpha and Beta Blockers

- Most common: Carvedilol and Labetalol Hydrochloride
- Possible side effects: Drop in blood pressure when standing
- Combined alpha and beta blockers I take:


## Vasodilators

- Blood vessel dilators, or vasodilators, can cause the muscle in the walls of the blood vessels (especially the arterioles) to relax, allowing the vessel to dilate (widen). This allows blood to flow through better.
- Most common med: Apresoline
- Possible side effects: headaches, swelling around the eyes, heart palpitations and aches/pains in joints
- Vasodilators I take:


## Central Agonists

- Central agonists also help decrease the blood vessels' ability to tense up or contract. The central agonists follow a different nerve pathway than the alpha and beta blockers, but accomplish the same goal of blood pressure reduction.
- Possible side effects: drowsiness, drop in blood pressure, anemia, dry mouth and constipation
- Central agonists I take:


## OVERVIEW AND REFERENCES



## References:

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